2643 / DPW

[11150/87]

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s)	:	Juergen SCHULTZ et al.
Serial No.	:	10/511,617
Filed	:	August 15, 2005
For	:	COMMUNICATIONS DEVICE FOR TRANSMITTING ACOUSTIC SIGNALS IN A MOTOR VEHICLE
Examiner	:	To be assigned
Art Unit	:	2643

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on

Date: Nov 11, 2005

Signature: Clifford Ulrich

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

TRANSMITTAL

SIR:

Enclosed is a copy of the International Preliminary Examination Report dated July 9, 2004.

No fee is believed to be required. However, if any fee is required, please use Deposit Account No. **11-0600**. A duplicate of this transmittal letter is enclosed for that purpose.

Respectfully submitted,

Dated: Nov. 11, 2005

By: Clifford Ulrich

Clifford A. Ulrich
(Reg. No. 42,194)

KENYON & KENYON
One Broadway
New York, New York 10004
(212) 425-7200

PATENT COOPERATION TREATY

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF TRANSMITTAL
OF COPIES OF TRANSLATION
OF THE INTERNATIONAL PRELIMINARY
EXAMINATION REPORT
(PCT Rule 72.2)

To:

EFFERT, BRESSEL UND KOLLEGEN
Radickestrasse 48
12489 Berlin
ALLEMAGNE

Date of mailing *(day/month/year)* 09 December 2004 (09.12.2004)	
Applicant's or agent's file reference PCT06.003.7E	**IMPORTANT NOTIFICATION**
International application No. PCT/EP2003/002368	International filing date *(day/month/year)* 07 March 2003 (07.03.2003)
Applicant VOLKSWAGEN AG et al	

1. **Transmittal of the translation to the applicant.**

The International Bureau transmits herewith a copy of the English translation made by the International Bureau of the international preliminary examination report established by the International Preliminary Examining Authority.

2. **Transmittal of the copy of the translation to the elected Offices.**

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following elected Offices requiring such translation:

CN

The following elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

EP, JP, US

3. **Reminder regarding translation into (one of) the official language(s) of the elected Office(s).**

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report.

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer Yolaine Cussac
Facsimile No.+41 22 740 14 35	Facsimile No.+41 22 338 70 80

Translation

PCT/EP2003/002368

PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference PCT06.003.7E	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/EP2003/002368	International filing date (*day/month/year*) 07 March 2003 (07.03.2003)	Priority date (*day/month/year*) 18 April 2002 (18.04.2002)
International Patent Classification (IPC) or national classification and IPC H04M 9/08		
Applicant VOLKSWAGEN AG		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 6 sheets, including this cover sheet.

   ☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

   These annexes consist of a total of 2 sheets.

3. This report contains indications relating to the following items:

   - I ☒ Basis of the report
   - II ☐ Priority
   - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
   - IV ☐ Lack of unity of invention
   - V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
   - VI ☐ Certain documents cited
   - VII ☐ Certain defects in the international application
   - VIII ☐ Certain observations on the international application

Date of submission of the demand	Date of completion of this report
04 June 2003 (04.06.2003)	09 July 2004 (09.07.2004)
Name and mailing address of the IPEA/EP Facsimile No.	Authorized officer Telephone No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/EP2003/002368

I. Basis of the report

1. With regard to the **elements** of the international application:*

☐ the international application as originally filed

☒ the description:

pages 1-5, as originally filed

pages _____, filed with the demand

pages _____, filed with the letter of _____

☒ the claims:

pages _____, as originally filed

pages _____, as amended (together with any statement under Article 19

pages _____, filed with the demand

pages 1-10, filed with the letter of 09 June 2004 (09.06.2004)

☒ the drawings:

pages 1/1, as originally filed

pages _____, filed with the demand

pages _____, filed with the letter of _____

☐ the sequence listing part of the description:

pages _____, as originally filed

pages _____, filed with the demand

pages _____, filed with the letter of _____

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.
These elements were available or furnished to this Authority in the following language _____ which is:

☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).

☐ the language of publication of the international application (under Rule 48.3(b)).

☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages _____

☐ the claims, Nos. _____

☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* *Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).*

** *Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.*

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-10	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	1-10	NO
Industrial applicability (IA)	Claims	1-10	YES
	Claims		NO

2. Citations and explanations

This report makes reference to the following documents:

D1: EP-A-0 304 257 (MCGREGOR THOMAS; WEMYSS GEORGE A (GB)) 22 February 1989 (1989-02-22)

D2: US-A-4 449 238 (LEE BYUNG H ET AL) 15 May 1984 (1984-05-15)

1. The present application fails to meet the requirements of PCT Article 33(1) because the subject matter of claim 1 does not involve an inventive step within the meaning of PCT Article 33(3).

D1 (the references in parentheses are to D1), which is regarded as the closest prior art, discloses, in accordance with the features of claim 1,

a communications devices (column 1, lines 30-45, "voice enhancer system") for transmitting acoustic signals (column 3, lines 55-63, "speech") in a motor vehicle (column 1, lines 30-45, "motor vehicle", figures 1 and 2, "car 1", "taxi 21").

The communications device described in D1 comprises (column 3, 1-54 and column 5, line 48 to column 6, line 42)

- at least two transmitters (figure 2 and "front/rear microphones 6,9" and "amplifier/electrical conditioning units 8,11", see also figures 5 and 6, "microphones 26, 29" and "amplifier/electrical conditioning units 28, 31", "microphones and loudspeakers are connected via an amplifier/electrical conditioning unit") and
- at least two receivers ("rear/front loudspeakers 7, 10, see also figures 5 and 6 and "loudspeakers 27, 30")

for transmitting and emitting acoustic signals "column 3, lines 55-63, "speech"), at least one transmitter ("microphone") and at least one receiver ("loudspeaker") each being allocated to a spatial position (column 2, lines 6-21, "favorable acoustic positions").

The communications device also comprises (column 3, lines 43-47 and column 6, line 8 to column 7, line 7)

- a control unit ("switching unit 12") for activating and deactivating at least one of the transmitters ("amplifier/electrical conditioning units", column 1, lines 30-45, "the system further comprises a switching unit for selectively activating the amplifier/electrical conditioning units", column 3, lines 43-47, "a logical switching unit is provided between the units 8 and 11 to select which system, front-to-rear or rear-to-front, is active"),
- at least one control element ("on/off switch", "latch switch 24", "push-button 25") being allocated to the control unit, by means of which control element at least one transmitter ("amplifier/electrical conditioning unit") can be

selectively deactivated irrespective of the prevailing signal level (column 6, line 8 to column 7, line 7, "latch switch 24 [...] to switch the preamplifier 28a off", "a make-to-speak push button 25 to switch the preamplifier on").

The communications device claimed in claim 1 differs from the device disclosed in D1 in that

a) the signal level of at least one transmitter is weighted by means of the control element; and

b) the signal level at the transmitters can be measured by means of the control element and only the transmitter with the highest signal level is activated.

As a result of these differences, the device according to the present invention solves the problem of making it possible to switch a transmitter not only purely manually, but also automatically.

This problem is solved by D2 (column 2, lines 22-36), which also describes a device that is similar to the device disclosed in D1.

D2 discloses in particular (column 2, lines 32-66 and column 5, line 24 to column 6, line 24) a communications device ("voice-actuated switching system") comprising a control unit (figures 1 and 2, "Central Processing Unit (CPU) 65 "), transmitter ("microphones") and receiver ("loudspeaker"). The control unit ("CPU") is a control element ("microphone control unit 20") by means of which at least one transmitter can be selectively deactivated ("off state", "the microphone control unit 20 controls the selected, mixed [...] and off states of

the [...] microphone channels").

In the communications device described in D2 (column 2, lines 30-55),

a) the signal levels ("output signals levels from each of the microphones") of at least one transmitter are weighted ("mixed state", "those microphones [...] have their outputs attenuated before [...]") by means of the control element ("microphone control unit 20"); and

b) the signal levels at the transmitters can be measured by means of the control unit ("CPU") ("output signal levels from each of the microphones") and only the transmitter with the highest signal level is activated ("the microphone with the greatest output at any given time is considered in the selected state").

Since automating a known, manual method is a task that does not go beyond normal technical development and since this is accomplished in D2 by the use of a device that is similar to the device disclosed in D1, a person skilled in the art could readily incorporate the device features known from D2 into a device according to D1 to achieve a corresponding effect, and in this manner to arrive at the device according to claim 1, without thereby being inventive.

The subject matter of claim 1 therefore does not involve an inventive step (PCT Article 33(3)).

2. The dependent claims do not contain any features which, in combination with the features of any claim to which they refer, meet the PCT requirements with regard to novelty and inventive step.

The features of claims 2, 3, 4, 7, 9 and 10 can be derived from D1 (see column 3, lines 1-54 and column 5, line 48 to column 6, line 42) and the features of claims 5 and 8 can be derived from D2 (see column 2, lines 32-66 and column 5, line 24 to column 6, line 44). The feature of claim 6 is already known in communications devices of this type.